

PORTLAND CONTAINER REPAIR CSM Site Summary

PORTLAND CONTAINER REPAIR

Oregon DEQ ECSI #: 2375

9449 N. Burgard Way

DEQ Site Mgr: Alicia Voss

Latitude: 45.6105°

Longitude: -122.7667°

Township/Range/Section: 2N/1W/35

River Mile: 4 West bank

LWG Member ☐ Yes ☒ No

Upland Analytical Data Status: ☐ Electronic Data Available ☒ Hardcopies only

1. SUMMARY OF POTENTIAL CONTAMINANT TRANSPORT PATHWAYS TO THE RIVER

The current understanding of the transport mechanism of contaminants from the uplands portions of the Portland Container site to the river is summarized in this section and Table 1, and supported in following sections.

1.1. *Overland Transport*

Portland Container Repair is located approximately 700 feet away from the International Terminals Slip and a mile from the main stem of the river; therefore, overland transport is not considered a pathway for contaminants from this landlocked area to reach the river (Figure 1).

1.2. *Riverbank Erosion*

Not applicable.

1.3. *Groundwater*

No preferential groundwater pathways have been identified during site investigations. Low concentrations of PCE were detected at one of seven groundwater sampling locations at the site; however, the source and extent of PCE impacted groundwater are unknown.

1.4. *Direct Discharge (Overwater Activities and Stormwater/Wastewater Systems)*

Stormwater from roof drains and paved areas is routed to a catch basin equipped with a crude oil/water separator and is discharged through private outfall 19 (WR-124?) to the slip under an NPDES permit via Schnitzer's storm sewer system (DEQ 2004; Century West 2001). There are no overwater activities associated with this site, as it is not located adjacent to the river.

1.5. *Relationship of Upland Sources to River Sediments*

See Final CSM Update.

1.6. *Sediment Transport*

Not applicable.

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2. CSM SITE SUMMARY REVISIONS

Date of Last Revision: March 4, 2005

3. PROJECT STATUS

Activity	Date(s)/Comments
PA/XPA	<input checked="" type="checkbox"/> Phase II and III ESA (Parcels 4-6; QGNW 1994)
RI	<input checked="" type="checkbox"/> Site included in the RI for the Burgard Industrial Park (Bridgewater 2002)
FS	<input type="checkbox"/>
Interim Action/Source Control	<input type="checkbox"/>
ROD	<input type="checkbox"/>
RD/RA	<input type="checkbox"/>
NFA	<input type="checkbox"/>

DEQ Portland Harbor Site Ranking (Tier 1, 2, or 3): Tier 2

4. SITE OWNER HISTORY

Sources: *Bridgewater 2001a, DEQ 2004*

Owner/Occupant	Type of Operation	Years
Schnitzer Investment Corp. (owner)/ Portland Container Repair (lessee)	Storage and repair of intermodal containers	1995 - present
Schnitzer Investment Corp.	Storage	1972 - present
Schnitzer Steel Industries	Scrap metal storage	1970s
Oregon Shipbuilding Corp.	WWII shipyard	1940s - 1945

5. PROPERTY DESCRIPTION

The Portland Container Repair facility is located in the Burgard Industrial Park (Parcels 4-8) on the west bank of the Willamette River at approximately RM 4. The 18.5-acre site is surrounded by industrial properties. To the north is Romar Transportation, and to the east, south, and west are properties leased by Schnitzer Steel Industries. The property is located approximately 700 feet northwest of the International Terminals Slip and about one mile east of the main stem of the Willamette (Figure 1).

The site is flat and only 5% is paved. A 5,600-square-foot building is located in the western portion of the property, with limited pavement immediately surrounding the building (Bridgewater 2000a).

According to Portland Container's Storm Water Pollution Control Plan (SWPCP), stormwater originates from three drainages basins. Approximate sizes and impervious areas of these basins are shown below:

Basin	Total Area (Acres)	Impervious Area (Acres)
1	2.95	0.22
2	0.61	0.34
3	8.37	0.00

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Stormwater is conveyed through catch basins to a subsurface drainage system that eventually connects to the Schnitzer storm drainage system, which ultimately discharges to the slip [see Figure 2 from Century West (2001)] under an NPDES permit. Basin 1 contains one infiltration trench and one manhole for the storm drain system. The catch basin for Basin 2 drains the main outdoor work area, and it is equipped with a crude oil/water separator and sediment basin. Basin 3 includes three infiltration trenches and is entirely unpaved. Stormwater in this area infiltrates the surface soil (Century West 2001).

6. CURRENT SITE USE

Activities at the Portland Container Repair facility include storage, maintenance, and cleaning of intermodal containers. Repair activities include riveting, welding, seam caulking, and limiting painting. Sometimes diesel refrigeration units found in some containers are also repaired on the property. All activities occur in the facility's main building except for washing, which occurs outside on a concrete pad.

Aerial photos show large areas of the property are used for container storage. A 1,000-gallon tanker truck is parked on the site to refuel forklifts and refrigeration units. The truck is parked on unpaved ground and has no containment (Bridgewater 2000b). New and used motor oil, hydraulic oil and spent oil filters are stored in an intermodal container in a graveled yard. No leaks or staining were observed by Bridgewater during their reconnaissance visit in 2000. A 200-foot concrete wash pad is located in the southwest portion of the site (Bridgewater 2000a). A curb around the wash pad was missing, and Bridgewater (2000a) observed light-colored soil staining adjacent to the pad, indicating that wash water may occasionally flow off the pad.

7. SITE USE HISTORY

During the WWII years, this property was likely part of the shipyard owned by the Oregon Shipbuilding Corporation. The International Terminals Slip was built during this time, and much of the Burgard Industrial Park's low-lying property was filled. From the 1960s into the early 1970s, shipways associated with the former shipyard were filled. Upland log storage likely occurred on portions of the property from 1963 to 1972. Schnitzer Steel stored large steel remnants on the site in the 1970s (Bridgewater 2000a).

The Portland Container Repair facility was constructed in 1995 to handle, store, and maintain large intermodal containers and container chassis. An aboveground diesel storage tank observed by CH2M HILL in 1996 was not located by Bridgewater in 2000 and is presumed to have been removed from the site (Bridgewater 2000a).

8. CURRENT AND HISTORIC SOURCES AND COPCS

The understanding of historic and current potential upland and overwater sources at the site is summarized in Table 1. The following sections provide a brief overview of the potential sources and COPCs at the site requiring additional discussion.

8.1. Uplands

The fuel tanker truck is parked on unpaved ground with no containment provided. Any spills from the truck could impact surface and subsurface soils. The wash pad was also missing curbed containment. Based on staining adjacent to the pad, wash water has impacted surface soils in this area (Bridgewater 2000a).

8.2. Overwater Activities

☐ Yes ☒ No

8.3. Spills

No known or documented spills at the Portland Container site were obtained either from DEQ's Emergency Response Information System (ERIS) database for the period of 1995 to 2004, from oil and chemical spills recorded from 1982 to 2003 by the U.S. Coast Guard and the National Response Center's centralized federal database [see Appendix E of the Portland Harbor Work Plan (Integral et al. 2004)], from facility-specific technical reports, or from DEQ correspondence.

9. PHYSICAL SITE SETTING

The Schnitzer Burgard Industrial Park is fairly level with ground surface elevations ranging between 20 and 30 feet above mean sea level. The topography of the industrial park gently slopes from east to west across the site, with the exception of a steep embankment along the Willamette River and the slip channel (DEQ 1999).

The Schnitzer Burgard Industrial Park lies along the northeastern bank of the Willamette River where deposits from high-energy Pleistocene floods formed a peninsular terrace at the convergence of the Willamette and Columbia Rivers. The southern two-thirds of the industrial park lie within the Willamette River's 100-year-flood zone (DEQ 1999). Portland Container is located in the northeast corner of the industrial park, outside of the 100-year-flood zone (see Figure 1).

Limited site-specific investigation information is available for the Portland Container site. According to Bridgewater's *Site History Review of the Burgard Industrial Park* (Bridgewater 2000a), Environmental Management Solutions (EMS) completed 10 tests pits at the Portland Container site in 1991 to investigate subsurface conditions and to screen for soil and groundwater for contamination. In March 1993, EMS completed 22 additional test pits and 1 borehole at the Portland Container site. The original EMS investigation reports documenting the exploration depth and detailed soil and groundwater results were not available for review. QGNW (1994) completed a soil investigation at two areas previously sampled by EMS. The maximum depth of exploration during the soil excavation was 32 inches (QGNW 1994).

9.1. Geology

The near-surface geology at the Schnitzer Burgard Industrial Park is dominated by the presence of dredge fill placed during the development of the industrial park in the late 1930s and during filling of the shipways in the later 1960s and early 1970s. The dredge fill, consisting of a mixture of brown sand and silty sand, varies in thickness across the Schnitzer Burgard Industrial Park from 25 to 35 feet along the river and thinning to 15 feet along the eastern edge of the site (Bridgewater 2001).

Based on the lithologic log from an industrial production well at Northwest Property Company (near the center of the Schnitzer Burgard Industrial Park), underlying the dredge fill to an approximate depth of 160 feet bgs are Quaternary deposits consisting of interbedded sands and silty clay. Below 160 to 220 feet bgs, the Quaternary deposits are predominantly composed of sand with gravel lenses (CH2M HILL 2000). The coarser-grained material may represent Pleistocene flood gravels (Quaternary deposit) and/or possibly the Troutdale Formation. Between 220 and 258 feet bgs, silty clay and clay with minor lenses of gravel were noted (CH2M HILL 2000). The latter unit may represent the Sandy River Mudstone. The total depth explored during installation of the onsite industrial production well was 258 feet bgs. The Oregon Water Resources Department well identification number for the onsite industrial production well is MULT 1824.

9.2. Hydrogeology

Localized zones of perched groundwater may be present within the dredge fill. Such perched zones have been encountered at a depth of about 15 to 20 feet on nearby properties. The presence and extent of the perched zones is expected to be variable and related to the presence of silt content within the dredge fill. The groundwater flow gradients in the perched zones are anticipated to be variable and relatively low; and discharge from the perched groundwater zones either discharges toward the river or infiltrates downward into the underlying dredge fill and alluvial deposits (Bridgewater 2001). A more continuous unconfined groundwater zone is anticipated within the upper portions of the alluvial deposits underlying the dredge fill (Bridgewater 2001) and potentially including the lower portions of the dredge fill itself. Seeps have been identified at the east end of the International Terminals Slip (GSI 2003). However, the relationship between the Portland Container site and the seeps is unknown since the groundwater flow direction and gradient at the site have not been assessed.

10. NATURE AND EXTENT (*Current Understanding*)

The current understanding of the nature and extent of contamination for the uplands portions of the site is summarized in this section. When no data exist for a specific medium, a notation is made.

10.1. Soil

10.1.1. Upland Soil Investigations

☒ Yes ☐ No

A Phase II and III Environmental Site Assessment were performed on Parcels 4-6 at the Portland Container Repair site in 1994. Soil sampling conducted on the site found concentrations of PCBs as high as 20 mg/kg (including Aroclors 1254 and 1260). The 20-mg/kg soil sample was later determined to be located on the property north of the Portland Container Repair site, currently occupied by Romar Transportation. Approximately 50 tons of PCB-contaminated soils (primarily within Parcels 5-6), with concentrations greater than 1 mg/kg, were removed and disposed of offsite in 1994. Confirmation samples revealed that cleanup was effective, and there was no further PCB contamination (QGNW 1994).

10.1.2. Riverbank Samples

☐ Yes ☒ No

10.1.3. Summary

Soil contaminated with PCBs has been removed from the site. Concentrations of other analytes were either non-detects or at background levels (QGNW 1994). As noted by Bridgewater (2000b), soil adjacent to the wash pad is stained and the tanker truck does not have containment; therefore, the potential exists for soil contamination on this site.

10.2. Groundwater

Limited site-specific groundwater data are available for the site.

10.2.1. Groundwater Investigations

☒ Yes ☐ No

In 1991, EMS completed 10 tests pits and collected groundwater samples from three of the tests pits for laboratory analysis of VOCs (Bridgewater 2000a). In March 1993, EMS completed 22 additional test pits and 1 borehole. Groundwater samples collected from three of the test pits and from the one borehole were analyzed for TPH, VOCs, metals, and PCBs (Bridgewater 2000a).

10.2.2. NAPL (Historic & Current)

☐ Yes ☒ No

No evidence of non-aqueous-phase liquids has been reported in available documents.

10.2.3. Dissolved Contaminant Plumes

☒ Yes ☐ No

With the exception PCE, no constituents were detected in the groundwater samples collected at Portland Container. PCE was detected in one groundwater sample at a concentration of 5.5 µg/L (Bridgewater 2000a).

Plume Characterization Status ☐ Complete ☒ Incomplete

VOC plume characterization is incomplete. Available documents do not include adequate information regarding sample locations and groundwater analytical results.

Plume Extent

Insufficient information is available to assess the extent of the PCE-impacted groundwater at the site.

Min/Max Detections (Current situation)

Available records indicate that groundwater sampling at the site was limited to the 1991 and 1993 site investigations (Bridgewater 2000a). The original site investigation reports documenting these groundwater results were not available for review. Based on available documentation, the minimum and maximum detections in groundwater are provided in the table below.

Analyte	Minimum Concentration (µg/L)	Maximum Concentration (µg/L)
<i>Volatile Organic Compounds</i>		
Tetrachloroethene (PCE)	ND	5.5

Current Plume Data

No current data are available to assess current plume conditions. However, based on Integral's review of the available data, it does not appear that the limited groundwater COIs and low concentrations constitute a groundwater pathway to the river.

Preferential Pathways

No preferential groundwater pathways have been identified at the site.

Downgradient Plume Monitoring Points (min/max detections)

Based on available information, downgradient monitoring points have not been established at the site.

Visual Seep Sample Data

☐ Yes ☒ No

Not applicable.

Nearshore Porewater Data

Portland Container does not occupy the shoreline along the Willamette River or the International Terminals Slip. The western edge of Portland Container is located approximately 1 mile east of the Willamette River and approximately 700 feet east of the International Terminals Slip. Nearshore porewater data were not collected as part of the site investigations.

Groundwater Plume Temporal Trend

Insufficient groundwater data are available to evaluate groundwater plume temporal trends.

10.2.4. Summary

The current groundwater chemistry data set is over 10 years old and consists of groundwater samples collected from six test pit excavations and one borehole. PCE was detected in one of the groundwater samples at a concentration of 5.5 µg/L (Bridgewater 2000a). Information regarding the groundwater sampling locations was not reported in available documents.

No preferential groundwater pathways have been identified. The source and extent of the PCE-impacted groundwater is unknown. Based on Integral's review of the available data, it does not appear that the limited groundwater COIs and low concentrations constitute a groundwater pathway to the river.

10.3. Surface Water

10.3.1. Surface Water Investigation

☐ Yes ☒ No

10.3.2. General or Individual Stormwater Permit (Current or Past)

☒ Yes ☐ No

Approximately 5% of the Portland Container facility is paved or covered. Stormwater originates in three basins, one of which is entirely unpaved. The other basins include four infiltration trenches, a catch basin, and a crude oil/water separator. The subsurface drainage system connects to the Schnitzer storm sewer system, which discharges to the slip through private outfall 19 (WR-124?).

Permit Type	File Number	Start Date	Outfalls	Parameters/Frequency
GEN12Z	111236	2/14/01	Unknown	Standard ¹ /twice yearly

¹ Standard GEN12Z permit requirements include pH, oil and grease, total suspended solids, copper, lead, and zinc. *E. coli* may also be required.

Do other non-stormwater wastes discharge to the system?

☐ Yes ☒ No

10.3.3. Stormwater Data

☐ Yes ☒ No

10.3.4. Catch Basin Solids Data

☐ Yes ☒ No

10.3.5. Wastewater Permit

☐ Yes ☒ No

10.3.6. Wastewater Data

☐ Yes ☒ No

10.3.7. Summary

Stormwater within the Portland Container property originates in three drainage basins, containing four infiltration trenches, a catch basin, and a crude oil/water separator. One basin is entirely unpaved, and stormwater infiltrates surface soils. Stormwater is routed to a subsurface storm drain system and is discharged to the slip under an NPDES permit via Schnitzer's storm sewer system.

10.4. Sediment

10.4.1. River Sediment Data

☐ Yes ☒ No

Portland Container Repair is located 700 feet away from the International Terminals Slip and a mile from the main stem of the river.

10.4.2. Summary

See Final CSM Update.

11. CLEANUP HISTORY AND SOURCE CONTROL MEASURES

11.1. Soil Cleanup/Source Control

Approximately 50 tons of PCB-contaminated soil was removed from the Portland Container site in 1994, prior to Portland Container's tenure. An aboveground diesel storage tank was removed from the site in the late 1990s.

11.2. Groundwater Cleanup/Source Control

There is no groundwater cleanup history at Portland Container.

11.3. Other

The Portland Container Repair facility currently has a Stormwater Pollution Prevention Plan to identify, reduce, and prevent the pollution of stormwater. The oil/water separator and catch basin are cleaned out several times a year (Century West 2001).

11.4. Potential for Recontamination from Upland Sources

See Final CSM Update.

12. BIBLIOGRAPHY / INFORMATION SOURCES

References cited:

Bridgewater. 2000a. Site History Review, Burgard Industrial Park. Prepared for Schnitzer Investment Corporation, Portland, OR. Bridgewater Group, Inc., Portland, OR.

Bridgewater. 2000b. Current Site Conditions Assessment, Burgard Industrial Park. Prepared for Schnitzer Investment Corporation, Portland, OR. Bridgewater Group, Inc., Portland, OR.

Bridgewater. 2001. Remedial Investigation Proposal, Burgard Industrial Park, 12005 North Burgard Road, Portland, Oregon. Prepared for Schnitzer Investment Corporation, Portland, OR. Bridgewater Group, Inc. Portland, OR.

Bridgewater. 2002. Phase I Remedial Investigation Data Report, Burgard Industrial Park, Portland, Oregon. Prepared for Schnitzer Investment Corporation, Portland, OR. Bridgewater Group, Inc., Portland, OR.

Century West. 2001. Storm Water Pollution Control Plan (SWPCP). Prepared for Portland Container Repair, Inc., Portland, OR. Century West, Portland, OR.

CH2M HILL. 2000. Preliminary Assessment for Northwest Pipe Company, Portland, Oregon. Prepared for Northwest Pipe Company, Portland, OR. CH2M HILL, Portland, OR.

DEQ. 1999. DEQ Strategy Recommendation – Schnitzer Corporation Site. November 24, 1999. Site Assessment Program, Oregon Department of Environmental Quality, Portland, OR.

DEQ. 2004. DEQ Site Summary Report – Details for Site ID 2375. DEQ Environmental Cleanup Site (ECSI) Database. Accessed February 3, 2004.
www.deq.state.or.us/wmc/ecsi/ecsidetail.asp?seqnbr=2375.

EMS. 1992. Field Sampling Report for IT Terminal Property. January 22, 1992. Environmental Management Solutions, Portland, OR. (*not seen, as cited in Bridgewater 2000a*)

EMS. 1993. Expanded Environmental Site Assessment and Sampling Study of the IT Terminal Property Lots 1, 2, 3, & 4. March 17, 1993. Environmental Management Solutions, Portland, OR. (*not seen, as cited in Bridgewater 2000a*)

GSI. 2003. Technical Memorandum: Results of Seep Reconnaissance Survey, River Mile 22-10.5, Lower Willamette River. Groundwater Solutions, Inc., Portland, OR.

Integral, Windward, Kennedy/Jenks, Anchor Environmental, and Groundwater Solutions. 2004. Portland Harbor RI/FS Programmatic Work Plan. Prepared for the Lower Willamette Group, Portland, OR. Integral Consulting, Inc., Mercer Island, WA.

QGNW. 1994. Interim Phase II and Phase III Environmental Site Assessment, Soil Sampling and Excavation, Parcels 4, 5, and 6, International Terminals Property. August 19, 1994. Prepared for Schnitzer Steel Industries, Portland, OR. Quality Group NW, Beaverton, OR.

Other relevant references/information sources:

EDR. 2002. EDR Environmental Atlas, Portland Harbor, Multnomah. OR. Environmental Data Resources, Southport, CT.

GSI. 2003. Portland Harbor RI/FS: Upland Groundwater Data Review Report, River Mile 2-11, Lower Willamette River. Prepared for the Lower Willamette Group, Portland, OR. Groundwater Solutions, Inc., Portland, OR.

Figures:

Figure 1. Site Features

Tables:

Table 1. Potential Sources and Transport Pathways Assessment

Supplemental Figures:

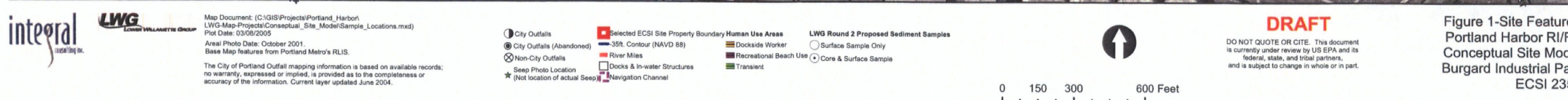
Figure 2. Site Plan with Drainage Routes and Sampling Locations (Century West 2001)

FIGURES

Figure 1. Site Features

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TABLES

Table 1. Potential Sources and Transport Pathways Assessment

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Portland Container Repair (#2375)
Table 1. Potential Sources and Transport Pathways Assessment

Last Updated: March 4, 2005

Potential Sources	Media Impacted					COIs															Potential Complete Pathway					
Description of Potential Source	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	River Sediment	TPH			VOCs			SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Butyltins	Overland Transport	Groundwater	Direct Discharge - Overwater	Direct Discharge - Storm/Wastewater	Riverbank Erosion	
						Gasoline-Range	Diesel - Range	Heavier - Range	Petroleum-Related (e.g. BTEX)	VOCs	Chlorinated VOCs															
Upland Areas																										
A Fuel truck parking area	?	?					?																			
Stormwater outfalls				?				?														?				
Unknown source			✓								✓															
Wash pad	✓	?					?	?				?														
Overwater Areas																										
B																										
Other Areas/Other Issues																										

Notes:

All information provided in this table is referenced in the site summaries. If information is not available or inconclusive, a ? may be used, as appropriate. No new information is provided in this table.

✓ = Source, COI are present or current or historic pathway is determined to be complete or potentially complete.

? = There is not enough information to determine if source or COI is present or if pathway is complete.

Blank = Source, COI and historic and current pathways have been investigated and shown to be not present or incomplete.

UST Underground storage tank

AST Above-ground storage tank

TPH Total petroleum hydrocarbons

VOCs Volatile organic compounds

SVOCs Semivolatile organic compounds

PAHs Polycyclic aromatic hydrocarbons

BTEX Benzene, toluene, ethylbenzene, and xylenes

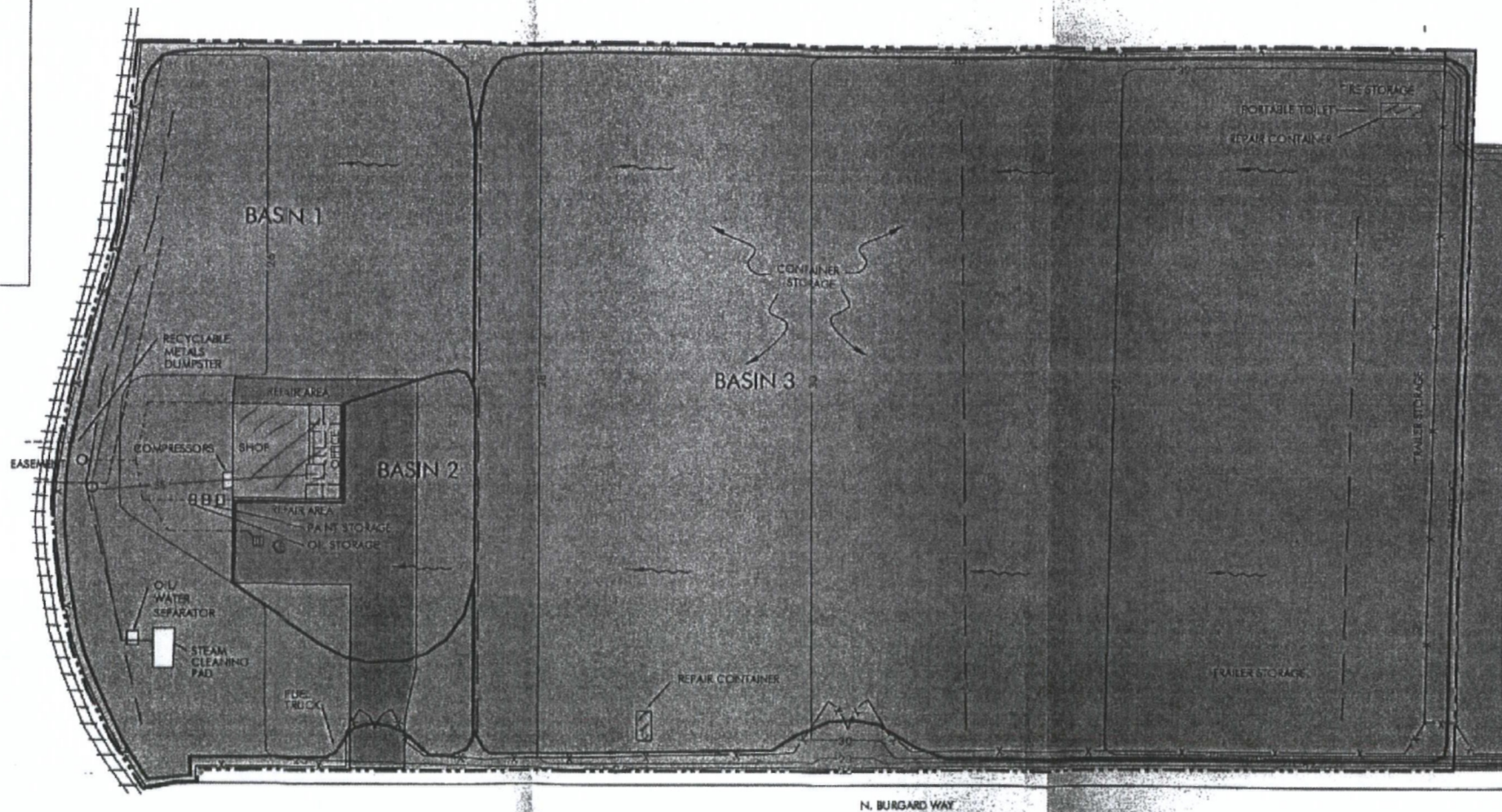
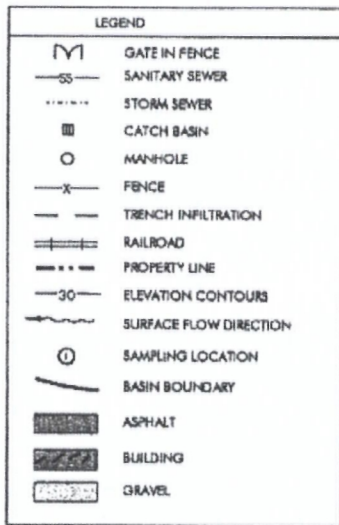
PCBs Polychlorinated biphenols

SUPPLEMENTAL FIGURES

Figure 2. Site Plan with Drainage Routes and Sampling Locations (Century West 2001)

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DATE: 07/03/01
 DESIGNED BY: Aaron Welling
 DRAWN BY: Stacy Kelley
 CHECKED BY: Richard Roche
 FILE NAME: 41309002.01.V1
 SCALE: Approximately 1"=85'

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**PORTLAND
 CONTAINER REPAIR**
 41309002.01

**SITE PLAN
 WITH DRAINAGE ROUTES
 AND SAMPLING LOCATIONS**
 Portland, Oregon

FIGURE
 2